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F] 858-677-1465**FAX TRANSMISSION COVER SHEET****February 21, 2003**To:Telephone:Fax Number:**Examiner Splvack, Art Unit 1614  
USPTO****(703)308-4703****(703) 308-4556**From:**Lisa A. Haile, J.D., Ph.D.  
858-677-1456**Client-Matter Number:**101668-17****FAX RECEIVED****FEB 23 2003**Re:**United States Patent Application No.: 09/889,251  
Entitled: METHODS OF TREATING MITOCHONDRIAL DISORDERS  
Inventor: Robert K. Naviaux  
Filed: November 1, 2001  
Our Ref. No.: UCSD1140-1****GROUP 1600****OFFICIAL**Pages: - 2 - (including this form)Originals: ☒ will be mailed ☐ will not be mailed**If there is a problem with this transmission, please call (858) 638-6715/Carrie Bickle  
Message:**

In advance of our telephone interview scheduled for Monday, February 24, 2003, following for your review is an alternative version of claim 1 in the above-identified application. The alternative claim language set forth herein likely serves as a good starting point for our discussion on Monday.

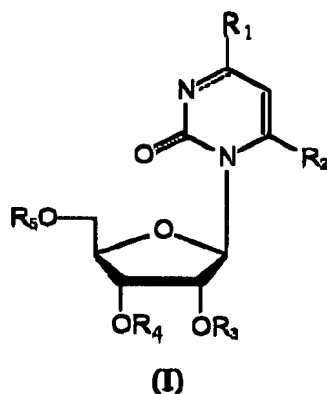
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101668-17**CONFIDENTIALITY NOTICE**

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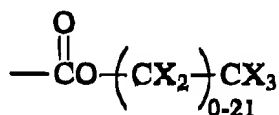
1. (Amended) A method for the treatment of a mitochondrial disorder comprising administering to a subject having or at risk of having such disorder an effective amount of a compound of Formula I:



wherein:

$R_1$  is O, OH,  $\text{NHCOCH}_3$ , or  $\text{NH}_2$ ,

$R_2$  is H,  $\text{CO}_2\text{H}$ , or



wherein:

each X is independently H or optionally substituted  $\text{C}_1\text{-C}_{22}$  alkyl, optionally substituted  $\text{C}_1\text{-C}_{22}$  alkenyl, or optionally substituted  $\text{C}_1\text{-C}_{22}$  alkynyl, with substituents selected from the group consisting of H,  $\text{C}_1\text{-C}_3$  alkyl, OH,  $\text{NH}_2$ , and halogen,

$R_3$ ,  $R_4$ , and  $R_5$  are each independently optionally substituted  $\text{C}_1\text{-C}_{22}$  alkyl carbonyl, with substituents selected from the group consisting of  $\text{C}_1\text{-C}_3$  alkyl, OH,  $\text{NH}_2$ , and halogen, or H, wherein at least one of  $R_3$ ,  $R_4$ , and  $R_5$ , are not H, and

wherein the administration of a compound of Formula (I) augments *de novo* synthesis of pyrimidines in a cell intended to be so treated,  
thereby treating the disorder,